

April 17, 2004

Dear Reader:

Enclosed you will find a Final Environmental Assessment and Findings of Fact, Conclusions of Law, Amendment and Order pertaining to a proposal from PPL Montana, LLC, to use water recovered from selected groundwater collection wells south of the Colstrip Steam Electric Plant on the Montana DOT Colstrip South Highway 39 Project. The recovered water has leaked from process water ponds and mixed with groundwater. This conditional approval of the amendment to the Certificate of Environmental Compatibility and Public Need for Generating Units 3 and 4 by the Department of Environmental Quality allows the recovered water to be used for dust suppression, soil compaction, and in surfacing the highway. Nothing in this amendment should be construed as allowing discharge of recovered water to surface waters of Montana without required discharge permits.

Oftedal Construction, the main contractor on the project, has estimated that 16 to 20 million gallons of the recovered water would be needed on the 10-mile highway reconstruction project. The conditional amendment contains a number of mitigating measures to help ensure that recovered water would remain on the highway right-of-way. The environmental assessment contains additional details of the proposal.

Any person aggrieved by this Order may, under §75-20-223(2), MCA, and within 15 days appeal the decision by requesting a hearing before the Board of Environmental Review. Any request for a hearing must be mailed or delivered by May 1, 2004 to Joyce Wittenberg, Secretary, Board of Environmental Review, 1520 East Sixth Avenue, P.O. Box 200901, Helena, Montana 59620-0901.

The Environmental Assessment was prepared pursuant to the Montana Environmental Policy Act. This notice and a copy of the EA were filed with the Environmental Quality Council on April 19, 2004.

Tom Ring
Environmental Specialist
Environmental Management Bureau

BEFORE THE DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE OF MONTANA

IN THE MATTER OF THE NOTICE TO)
AMEND THE COLSTRIP 3 AND 4)
CERTIFICATE OF ENVIRONMENTAL)
COMPATIBILITY AND PUBLIC NEED,)
)
)
)
)

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND AMENDMENT TO CERTIFICATE
OF ENVIRONMENTAL COMPATIBILITY

AND PUBLIC NEED AND FINAL ORDER

PROCEDURES

1. PPL Montana, LLC, (the “Applicant”), successor in interest to the Montana Power Company, operates Colstrip Generating Units 3 and 4 under a Certificate of Environmental Compatibility and Public Need Certificate (Certificate) issued July 22, 1976 and amended June 1, 1979.
2. The Applicant filed a Notice to Amend its Certificate (Notice to Amend) on March 4, 2004, for the purpose of using water from selected Colstrip Generating Plant groundwater collection systems for dust control, compaction, and sealing on the Montana Department of Transportation Colstrip South Highway 39 reconstruction project in 2004. At that time required notice was not provided as required under §75-20-219(1), Montana Code Annotated (MCA). On March 25, 2004 the Applicant published the required notice. Copies of the notice were served on various parties to the original Certification proceedings and residents whose property is near the Highway 39 reconstruction project.
3. The Department of Environmental Quality (the “Department” or “DEQ”) issued a draft Environmental Assessment (“EA”) on April 5, 2004. A four-day public comment period followed. The EA was revised and a final EA issued on April 16, 2004. No public comment on the EA was received from neighboring residents and one letter of comment was received from the Applicant.
4. The Department determined in the final EA that use of recovered water would affect a new geographic area not originally anticipated or considered in the certification proceedings.
5. The Department, having fully read and considered the application and the EA does hereby adopt the following Findings of Fact, Conclusions of Law, and Amendment to the Certificate of Environmental Compatibility and Public Need and Final Order issued July 22, 1976.

FINDINGS OF FACT

6. The Department has found and determined that the Notice to Amend would result in a substantial change in the location of all or a portion of the facility, and would not, with conditions, result in a material increase in any environmental impacts of the facility. Findings on these issues are required by §75-20-219, MCA.
7. In order for the Department to determine whether an Amendment should be granted, the Department must find and determine whether the Amendment will not materially alter the findings that were the basis for granting the Certificate.
8. The Amendment does not alter the Findings of Fact in the Certificate with the following exceptions:
 - a. Seepage from the ponds will be collected by wells but will not be returned to waste disposal ponds.
 - b. The plant ash disposal system would not be operated as a closed loop system. Pond leakage recovered by ground water interception wells would be used, with specified restrictions, monitoring, and cleanup requirements, off the plant site and on the South Highway 39 reconstruction project in 2004.
 - c. Potential off-site impacts to surface and ground water could occur but additional mitigating measures would limit potential adverse impacts.
 - d. Not all material from scrubber units and boilers would be conveyed to ash disposal ponds. Water from selected recovery wells near boiler bottom ash ponds would instead be used on the South Highway 39 reconstruction project during 2004.

NATURE OF PROBABLE ENVIRONMENTAL IMPACTS

9. Use of recovered water for the South Highway 39 reconstruction project involves use of recovered water that, depending on recovery well, has elevated specific electrical conductivity, sulfate, boron, and chloride as well as elevated sodium adsorption ratios (SAR). The applicant would dilute recovered water so that specific electrical conductivity of the water does not exceed 5,000 microsiemens/cm. Specific electrical conductivity of the recovered water is greater than the water quality standard of 1,000 microsiemens/cm on average adopted for the Rosebud Creek drainage during summer. SAR of water from recovery wells ranges from about 1.3 to 9.2. The water quality standard pertaining to SAR for the Rosebud Creek drainage during summer is 3 on average and no single sample can exceed 3.5.
10. The recovered water would be transported via pipeline from selected recovery wells to Plant North Pond C by the Applicant, and from there the highway contractor would use a temporary pipeline to transport recovered water to ponds located along the highway reconstruction. Water from these temporary ponds

would then be transferred to a watering truck and applied to the road for dust control and compaction, and mixed with a surfacing material.

11. DEQ staff inspected the project area on March 25 and 26, 2004, and found the pipeline proposed by the contractor to transport the recovered water to the highway project to have many leaks. Based on this information and information provided by neighboring landowners indicating the degree of leakage that resulted from highway construction the previous year, the Department concluded that, without additional mitigating measures, leakage from the pipeline could reasonably be expected to move off the highway right-of-way and affect productivity of nearby land, adversely affect vegetation, and degrade adjacent state waters. Further, the highway contractor did not have adequate storm water controls in place such that significant sediment was leaving the highway right-of-way and would be expected to leave the right-of-way in the future.
12. The proposed use of recovered water would not affect air quality.
13. The proposed use of recovered water would not result in additive impacts to cultural resources being affected by the highway reconstruction project.
14. Use of recovered water would not result in additive impacts to aesthetic resources being affected by the highway reconstruction project.
15. Use of recovered water would reduce demands on limited water resources in the vicinity of the highway reconstruction project.
16. Use of recovered water would not add any risks to health and safety in the area.
17. Use of recovered water with additional mitigating measures would contribute slightly to employment and slightly increase tax revenues.
18. Use of recovered water would require additional monitoring by DEQ.
19. Use of recovered water would not affect locally adopted environmental plans and goals.
20. Use of recovered water would not affect wilderness areas or recreation areas.
21. Use of recovered water would not affect the density and distribution of housing.
22. Use of recovered water would not affect social structures and mores.
23. Use of recovered water would not affect cultural uniqueness and diversity.
24. Upon project completion, all temporary storage ponds along the highway project would be reclaimed.

25. Additional mitigating measures that were identified in the final EA that PPL must agree to implement before transferring recovered water off-site include:

a. In addition to testing water as outlined in the proposed action, the following monitoring steps would be followed.

i.) Prior to delivery of the first batch of water to the highway contractor, PPL Montana would test the water in Plant North Pond C as described above and send the test results to DEQ. DEQ's approval, after reviewing the test results, is required prior to initial water transfer. Testing would be for specific electrical conductivity, total dissolved solids, pH, sodium adsorption ratio (SAR), a screen for PCBs, and total dissolved calcium, magnesium, sodium, boron, selenium, arsenic, mercury, and chromium. Subsequent water quality monitoring may be adjusted based on these results.

ii.) PPL would be required to test water in Plant North Pond C for electrical conductivity and pH at the start of each day that recovered water would be removed from the pond. Prior to each test, equipment would be calibrated to standard solutions having electrical conductivities and pHs similar to those expected in the ponds. If electrical conductivity exceeded 5,000 μmhos , or if pH was either greater than 8 or less than 6, procedures outlined under the proposed action for full testing would be implemented immediately.

iii.) Unless initial testing suggests otherwise, PPL would be required to test water in Plant North Pond C at the beginning of every other week for electrical conductivity, total dissolved solids, pH, boron, sodium adsorption ratio (SAR), selenium, and chromium at a commercial laboratory and submit results to DEQ. Results would be reported to DEQ as they become available.

b. The Department would implement the monitoring program outlined below.

i. Monitoring would involve sampling wetted surface materials, wetted soil, regolith (parent rock materials), and dry underlying materials both under the pipeline near the joint and again one meter down slope from the joint. Sampling along the pipeline will be undertaken and will be limited to 14 points along the pipeline. Initial sampling would be done prior to use of the water from recovery wells and at several dates during the summer. These samples would be held for analysis if a subsequent problem were found during project inspection by Department staff. If the use of water from recovery wells is initiated on approximately April 18, 2004, site identification and sampling would be done prior to moving water with subsequent sampling on May 15, 2004, June 15, 2004, August 15, 2004, and at the end of road construction activities or late fall 2004.

Five sites should be established in the uplands, in or near flat bottom drainages, and four near the V bottom of steep sided drainages.

ii. Discharge of contaminated materials will follow the drainage ways off of the site. Obtaining water quality samples from the channels is not practical given the cost. The quality of affected soils will provide an indication of the impact to the immediate area and downstream sampling points can be used to define the extent of the impact if off-site movement of recovered water or sediment from the highway reconstruction is observed during inspections. Sampling points will be established at the fence line/boundary of highway project and at approximately 4, 20, and 150 meters down slope in the channel. Samples will be collected from recent or existing sediments, wetted native soil or parent rock, and underlying dry soil or parent rock as indicated on the following tables.

c. Concern has been expressed about the potential transfer of weed seeds from the Plant North Pond C Area to the highway and surrounding lands. A simple greenhouse test of sediments from Plant North Pond C will be undertaken to guide identification of and resolution of potential weed control issues.

OFFSITE IMPACT MONITORING ON PP&L WATER FROM RECOVERY WELLS PROJECT
monitoring of pipeline

Approximate	Site Position	Site Position # steep V channel	Site Position flat bottom channel	Parameters tested:	Parameters tested:
Dates	# upland sample sites	sample sites	sample sites	Se, B, & sat paste	B & sat paste
04/05/04	5	4	5	14	0
05/01/04	5	4	5	0	14
06/15/04	5	4	5	14	0
08/15/04	5	4	5	0	14
end	5	4	5	14	0
			Total	42	28

OFFSITE IMPACT MONITORING ON PP&L WATER FROM RECOVERY WELLS PROJECT**channel offsite sampling**

Approximate Dates (as needed) ¹	Anticipated # of steep V channel samples	Anticipated # of flat bottom channel samples	Parameters tested Se, B, & sat paste	Parameters tested B & sat paste
04/05/04	2	5	15	0
05/01/04	3	5	0	15
06/15/04	3	5	15	0
08/15/04	3	5	0	15
end	3	5	15	0
		Total	45	30

¹ Samples would be collected prior to using recovered water on the highway project. During the project samples would be collected as needed if off-site movement of recovered water or sediment from the highway reconstruction project is observed during inspection.

d. Before the start of the project, PPL would fully control the salt cedar (*Tamarix sp.*) in Plant North Pond C, using only herbicides approved by EPA for use near water. PPL would be responsible for salt cedar and knapweed weed control along the highway project for a five-year period following construction. At the end of the five-year period, DEQ would invite a representative from PPL or its successor and the county weed control supervisor to review the highway project to determine what, if any, additional weed control measures are necessary for these two species.

e. In any contract for sale or sale without contract of the recovered water by PPL, PPL will require, as a condition of the sale, the purchaser to:

i.) Cease application of recovered water during a precipitation event that could cause off-site runoff;

ii.) Not allow surface runoff or sediment movement that would reach surface water bodies or stream channels during application of recovered water for dust control, compaction, or road surfacing;

iii.) Not apply recovered water within 100 feet of an intermittent stream or within 100 yards of Rosebud Creek;

iv.) Drain the pipeline each time after temporary ponds are filled;

v.) Inspect the pipeline and ponds for leaks while pumping operations are underway and following pipeline draining;

vi.) If pipeline or pond leakage is detected, not allow minor leakage of recovered water to flow off the fenced highway right-of-way. If such flow off the right-of-way does occur, the purchaser is responsible for recovering this water and any saturated soils unless otherwise specified by the landowners in writing. In the event of a larger leak, the pipeline shall be shut down until repairs are completed;

vii.) The pipeline shall only be used during the day;

viii.) Storm water controls shall meet DEQ guidelines to reduce the likelihood of sediment reaching off-road, and storm water controls shall be maintained;

ix.) Pipeline bracing shall be improved and maintained; and

x.) Prior to use of the pipeline for moving recovered water, the purchaser shall demonstrate the integrity of the pipeline.

xi.) PPL shall be responsible for pipeline and pond leakage from the recovery wells and Plant North Pond C. From Plant North Pond C to the south, the purchaser shall be responsible for cleaning up any water that leaves the right-of-way, along with any contaminated sediment and any soils saturated with recovered water unless otherwise specified in writing by the landowner(s). Likewise, PPL or the purchaser shall be responsible for restoration of any areas damaged by cleanup operations in their respective areas of responsibility. The intent of this measure is ensure that adjacent landowner(s) do not assume any liability for cleanup caused by actions of either PPL or the purchaser who would each benefit from the use of recovered water on the highway project. Adjacent landowners would not be held liable for any future cleanup costs associated with use of recovered water on the Highway 39 project.

f. DEQ personnel would monitor the project approximately once a week during initial phase of construction with potential reduction in this monitoring interval if work is accomplished in a satisfactory manner. If DEQ finds that that operations are not in compliance with these conditions, transfer of recovered water from PPL must be terminated immediately upon written notice by DEQ. Following construction, DEQ personnel would monitor the area for establishment of noxious weeds. PPL would bear the cost of monitoring by DEQ as allowed by §75-20-704, MCA.

CONCLUSIONS OF LAW

1. The Department finds, pursuant to §75-20-219, MCA, and ARM 17.20.1804, that the proposed changes identified in the Amendment in conjunction with the

required additional mitigating measures do not materially alter the findings of fact that were the basis for granting the original Certificate.

2. The probable environmental impact from the use of recovered water with required additional mitigating measures identified in paragraph 25 would be minimal if executed in compliance with the terms and conditions of this Amended Certificate and Order.
3. The Department hereby grants the application as specified in these Findings of Fact and Conclusions of Law and issues an Amended Certificate as required by MFSA, Title 75, Chapter 20, MCA, subject to the additional mitigating measures listed in paragraph 25 above.

FINAL ORDER

1. NOW, THEREFORE, it is ordered that the Certificate for PPL Montana is amended to allow use of recovered water on the Montana Department of Transportation South Highway 39 Reconstruction Project in 2004 as set forth in the Notice to Amend and under the terms and conditions of the Findings of Fact and Conclusions of Law herein set forth.
2. Any person aggrieved by this Order may, under §75-20-223(2), MCA, and within 15 days appeal the decision by requesting a hearing before the Board of Environmental Review. Any request for a hearing must be mailed or delivered to Joyce Wittenberg, Secretary, Board of Environmental Review, 1520 East Sixth Avenue, P.O. Box 200901, Helena, Montana 59620-0901.
3. The Department shall serve a copy of this Order on all parties.

DATED this _____ day of April, 2004.

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

By: _____
DEPUTY DIRECTOR